FOR DEMONSTRATION PURPOSES

ATTACHED FIG. A

ADDED W AND
PRECIPITATED W
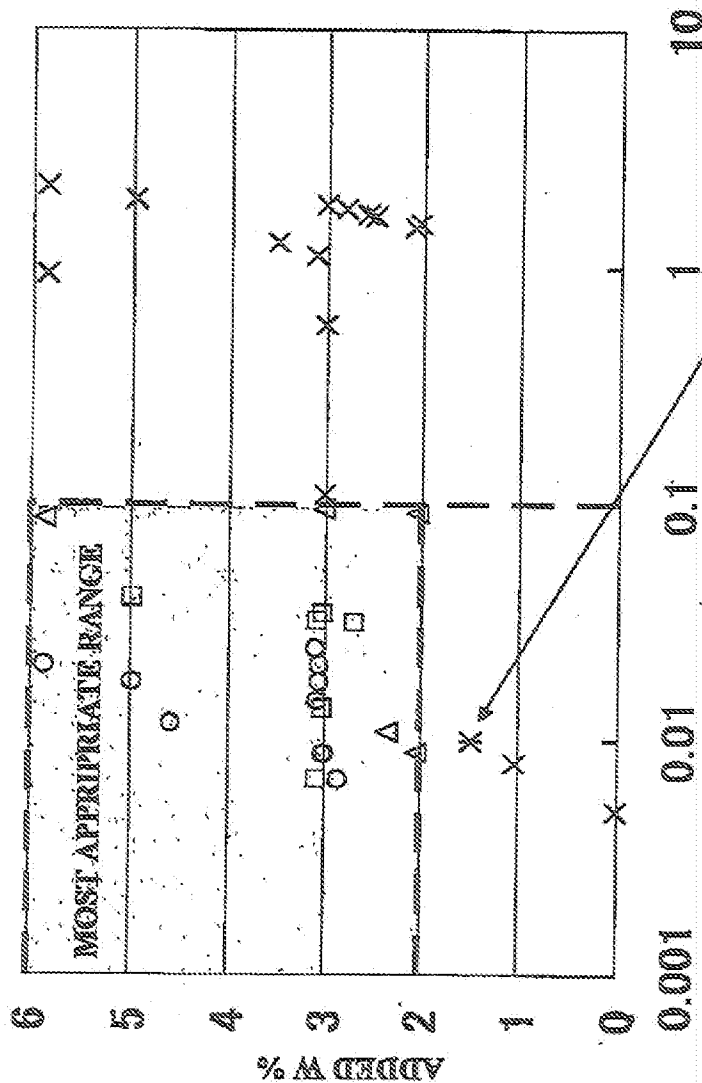
O: RANK A, LESS THAN 11.7
□: RANK B, 11.7 TO LESS THAN 12.1
△: RANK C, 12.1 TO LESS THAN 12.6
×: RANK D, 12.6 OR MORE
*: KAWABATA PATENT
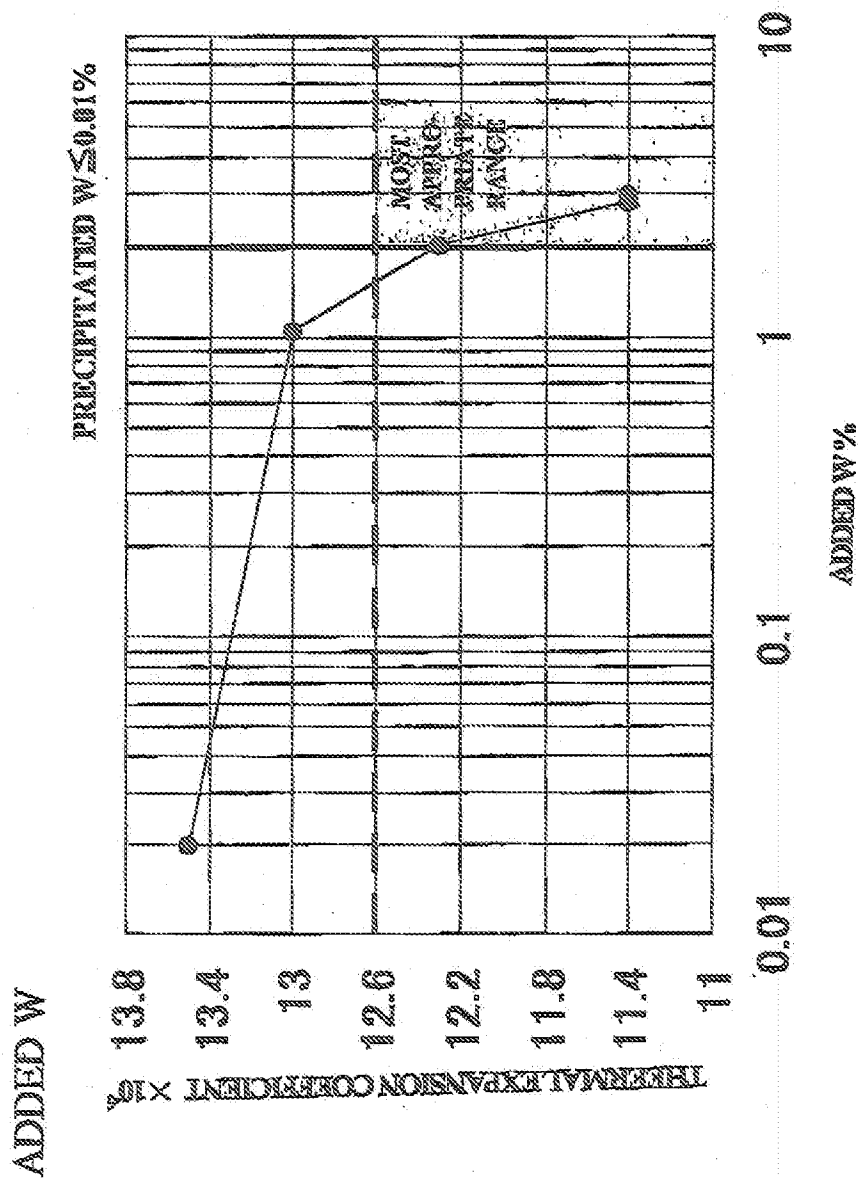

KAWABATA PATENT
(PRECIPITATED W=NOT INCLUDED
IN MOST APPROPRIATE RANGE
EVEN WHEN 0.01)

FOR DEMONSTRATION PURPOSES

ATTACHED FIG. B

PRECIPITATED W≤0.01%

MOST
APPLIC
ABLE
RANGE

ADDED W%

ADDED W

THERMAL EXPANSION COEFFICIENT ×10⁶

13.8
13.4
13
12.6
12.2
11.8
11.4
11

0.01   0.1   1   10

FOR DEMONSTRATION PURPOSES

ATTACHED FIG. C

PRECIPITATED W

THERMAL EXPANSION COEFFICIENT $\times 10^6$

13.8
13.4
13
12.6
12.2
11.8
11.4
11

0.001   0.01   0.1   1   10

ADDED W %

MOST APPROPRIATE RANGE

ADDED W≒3%